

B' and saturated ammonium chloride aqueous solution. The organic phase was washed with saturated aqueous potassium carbonate and ammonium chloride solution, dried over Na_2SO_4 . After removing the ethylacetate, the residue was subjected to a Biotage silica gel column chromatography to yield a white solid as the product N-[2(S)-1(R,S)-2-[1-hydroxy-1-(2-thiazolyl)]-5-[[[(4-methoxy-2,3,6-trimethyl)sulfonylamino]-iminomethyl]aminopentyl]-2-[3-benzylsulfonylamino-2-oxo-2H-quinolin-1-yl]acetamide (EX-1D) (0.347 g, $\gamma = 76\%$). HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 3.75 min, $\text{M}+\text{H}^+ = 810.3$ for formula $\text{C}_{37}\text{H}_{43}\text{N}_7\text{O}_8\text{S}_3$. Since the compound is a mixture of two diastereomers, the ^1H NMR and ^{13}C NMR was complex.

Please replace the second paragraph beginning on page 190 and continuing on page 191 with the following:

B² EX-1E) Compound EX-1D (0.32 g, 0.395 mmol) was mixed with 1,3-dihydro-1-hydroxy-3,3-bis(trifluoromethyl)-1-oxide-1,2-benziodoxole (0.238 g, 0.593 mmole) in 5 ml acetonitrile. The mixture was stirred at 20 °C for 2 hours. It was then mixed with 30 ml 1M NaHSO_3 aqueous solution. The combined solution was extracted with ethylacetate, and the organic phase was washed with saturated NaHCO_3 aqueous solution and dried over Na_2SO_4 . After removing the ethylacetate, the remaining residue was subjected to a silica gel flash column chromatography using 30% ethylacetate in hexane as elute to yield a white solid as the product N-[2(S)-2-[1-Oxo-1-(2-thiazolyl)]-5-[[[(4-methoxy-2,3,6-trimethyl)sulfonylamino]iminomethyl]amino]pentyl]-2-[3-benzylsulfonylamino-2-oxo-2H-quinolin-1-yl]acetamide (EX-1E) (0.296 g, 93%). HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 4.07 min, $\text{M}+\text{H}^+ = 808.2$ for formula $\text{C}_{37}\text{H}_{41}\text{N}_7\text{O}_8\text{S}_3$. ^1H NMR (400 MHz, acetone- d_6): δ 1.71 (b, 4H), 2.07 (s, 3H), 2.59 (s, 3H), 2.64 (s, 3H), 3.24 (m, 2H), 3.80 (s, 3H), 4.62 (s, 2H), 5.17 (d, $J = -16.4$ Hz, 1H), 5.22 (d, $J = 16.4$ Hz, 1H), 5.62 (m, 1H), 6.47 (b, 2H), 6.64 (s, 1H), 7.24 (m, 4H), 7.36 (m, 3H), 7.44 (m, 2H), 7.59 (t, $J = 7.2$ Hz, 2H), 7.95 (b, 1H), 8.08 (m, 3H). ^{13}C NMR (101 MHz, CDCl_3): δ 12.0, 15.6,

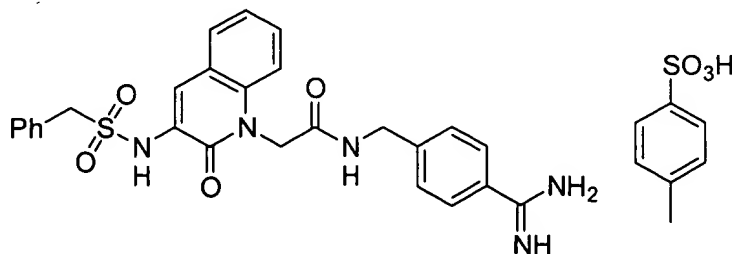
B²
18.6, 24.2, 41.1, 46.6, 55.8, 55.9, 58.5, 66.1, 112.3, 120.3,
121.2, 123.8, 124.8, 128.5, 129.1, 129.2, 129.3, 129.6, 129.7,
129.9, 123.0, 131.9, 135.8, 136.7, 137.0, 139.0, 146.1, 157.4,
158.0, 158.8, 165.6, 167.7, 192.0.

Please replace the first full paragraph on page 191 with the following:

B³
Compound EX-1E (0.240 g, 0.296 mmol) was treated with thioanisole (0.220 g, 1.78 mmol) and 8 ml trifluoroacetic acid for 5 hours. After removing the TFA, the residue was triturated in diethylether twice and ethylacetate once to give a white amorphous solid as the product N-[2(S)-2-[1-Oxo-1-(2-thiazolyl)]-5-[[[amino)iminomethyl]]amino] pentyl]-2-[3-benzylsulfonylamino-2-oxo-2H-quinolin-1-yl]acetamide trifluoroacetic acid salt (0.183 g, yield of 87%). HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 3.07 min, M+H⁺ = 596.2 for formula C₂₇H₂₉N₇O₅S₂. ¹H NMR (400 MHz, DMSO-d₆): d 1.58 (bm, 2H), 1.67 (bm, 1H), 1.90 (b, 1H), 3.10 (bm, 2H), 4.60 (s, 2H), 3.80 (s, 3H), 4.62 (s, 2H), 5.01 (d, J = -17.2 Hz, 1H), 5.11 (d, J = -17.2 Hz, 1H), 5.38 (m, 1H), 6.80-7.70 (m, 15H), 8.14 (s, 1H), 8.23 (s, 1H), 8.88 (b, 1H), 9.99 (d, J = 8.0 Hz, 1H). ¹³C NMR (101 MHz, DMSO-d₆): d 25.3, 28.0, 44.9, 48.6, 54.4, 58.0, 114.2, 119.7, 121.9, 124.8, 126.1, 128.2, 128.3, 128.7, 131.0, 135.9, 137.1, 138.7, 144.7, 145.4, 156.6, 157.4, 164.4, 166.8, 191.4.

Please replace the second full paragraph beginning on page 191 and continuing on page 192 with the following:

Example 2



B⁴
EX-2A) 3-Benzylsulfonylamino-2-oxo-2H-quinolin-1-yl)acetic acid was coupled with benzyl-[[[4-aminomethylphenyl]iminomethyl]amino]carbamate hydrogen chloride salt using EDC, HOBT as coupling agents in the presence of DIEA in DMF. Work up procedure gave a white amorphous solid as the product, N-[[4-[(benzylcarbonylamino)iminomethyl]phenyl]methyl]-2-[3-benzylsulfonylamino-2-oxo-2H-quinolin-1-yl]acetamide. HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 3.38 min, $M+H^+$ = 638.3 for formula $C_{34}H_{31}N_5O_6S$. 1H NMR (400 MHz, $CDCl_3$): d 4.38 (s, 2H), 4.50 (d, J = 6.0 Hz, 2H), 4.92 (s, 2H), 5.14 (s, 2H), 7.06 (t, J = 7.2 Hz, 1H), 7.13 (t, J = 7.6 Hz, 2H), 7.15-7.24 (m, 6H), 7.30-7.40 (m, 6H), 7.45 (m, 3H), 7.52 (m, 1H), 7.57 (d, J = 8.4 Hz, 2H), 8.65 (b, 1H), 9.09 (b, 1H).

Please replace the first full paragraph on page 192 with the following:

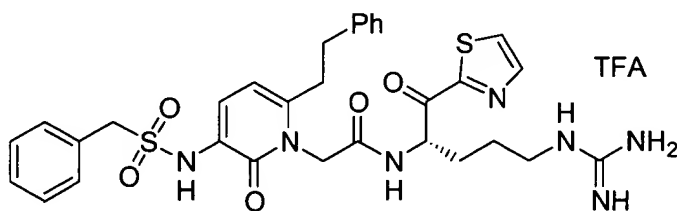
B⁵
Compound **EX-2A** (0.118 g, 0.185 mmol), *p*-toluenesulfonic acid mono hydrate (0.035 g, 0.185 mmol) and 10% Pd on activated carbon (0.029 g, 0.018 mmol) were mixed with 5 ml methanol. The mixture was stirred for 2 hours under an atmosphere of hydrogen that was introduced through a rubber balloon. After filtering off the catalyst and removing the methanol, the remaining residue was recrystallized in a solvent of 2:1 ether to methanol to yield a white amorphous solid as the product, N-[[4-[(amino)iminomethyl]phenyl]methyl]-2-[3-benzylsulfonyl-amino-2-oxo-2H-quinolin-1-yl]acetamide *p*-toluenesulfonic acid salt, (0.080 g, yield = 64%). HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 2.81 min, $M+H^+$ = 504.5 for formula $C_{26}H_{25}N_5O_4S$. 1H NMR (400 MHz, CD_3OD): d 2.36 (s, 3H), 4.52 (s, 2H), 4.57 (s, 2H), 5.15 (s, 2H), 7.18-7.32 (m, 7H), 7.36 (t, J = 7.2 Hz, 2H), 7.48-7.55 (m, 4H), 7.59 (s, 1H), 7.70 (d, J = 8.0 Hz, 2H), 7.74 (d, J = 8.4 Hz, 2H).

Please replace the second full paragraph beginning on page 197 and continuing on page 198 with the following:

B⁶ **EX-5F)** A solution of **EX-5E** (0.053 g, 0.157 mmol) in THF and methanol (3:2, 5mL) was treated with 1.0 M LiOH (aq). The reaction mixture was stirred over night. The mixture was concentrated to remove the volatile components. The resulting aqueous solution was acidified with 1N HCl, and a solid precipitated from the solution. After filtration, the filter cake was washed with 1N HCl and water to afford 0.038 g of 2-[3-benzamido-2-oxo-2H-1,8-naphthyridin-1-yl]acetic acid (**EX-5F**) as white solid in 74% yield: ¹H NMR (400 MHz, d-DMSO) δ 13.10 (br s, 1H), 9.53 (s, 1H), 8.78 (s, 1H), 8.51-8.50 (m, 1H), 8.26 (d, J = 7.8 Hz, 1H), 7.93 (d, J = 8.1 Hz, 2H), 7.62-7.51 (m, 3H), 7.36-7.32 (m, 1H), 5.14 (s, 2H); ¹³C NMR (100 MHz, d-DMSO) δ 169.9, 166.0, 158.7, 148.8, 145.9, 137.5, 134.2, 133.0, 129.5 (2C), 128.8, 128.0 (2C), 120.4, 120.2, 116.2, 43.5; HRMS (EI) calcd for C₁₇H₁₃N₃O₄ 324.1004, found 324.098.

Please replace the first paragraph on page 202 with the following:

B⁷ **Example 17**

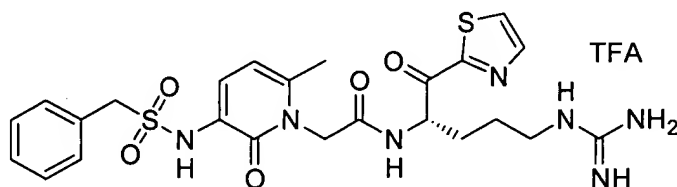


N-[2(S)-2-[1-hydroxy-1-(2-thiazolyl)]-5-[[[(4-methoxy-2,3,6-trimethyl)sulfonylamino]iminomethyl]amino]pentyl]-2-[6-(2-phenylethyl)-2-oxo-3-[[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyridin-1-yl]acetamide (0.084 g, 0.098 mmol) was treated with 1,3-dihydro-1-hydroxy-3,3-bis(trifluoromethyl)-1-oxide-1,2-benziodoxole (0.0588 g, 0.147 mmole) in 1 ml acetonitrile. Similar work-up procedure as in preparing **EX-1E** was used to yield the oxidation product. The oxidation product was treated with thioanisole (0.073 g, 0.59 mmol) and 3 ml trifluoroacetic acid

B⁷
for 6 hours. After removing the TFA, the residue was triturated in ether. It was purified by a preparative C-18 reverse HPLC column using a gradient that proceed from 5% to 95% acetonitrile in H₂O in the presence of 0.1% TFA in 30 minutes to yield the product, N-[2(S)- 2-[1-Oxo-1-(2-thiazolyl)]-5-[[(amino)iminomethyl]amino] pentyl]-2-[6-(2-phenylethyl)-2-oxo-3-[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl]acetamide trifluoroacetic acid salt, as a white amorphous solid (0.0232 g, y = 31 %). HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 3.43 min, M+H⁺ = 650.2 for formula C₃₁H₃₅N₇O₅S₂.

Please replace the second full paragraph beginning on page 202 and continuing on page 203 with the following:

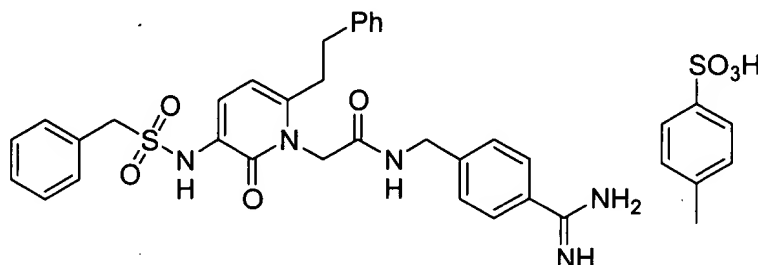
Example 18



This compound, N-[2(S)- 2-[1-Oxo-1-(2-thiazolyl)]-5-[[(amino)iminomethyl]amino] pentyl]-2-[6-methyl-2-oxo-3-[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl]acetamide trifluoroacetic acid salt, was prepared in a similar fashion as for **Example 1**. HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 2.69 min, M+H⁺ = 560.3 for formula C₂₄H₂₉N₇O₅S₂.

Please replace the first paragraph of page 203 with the following:

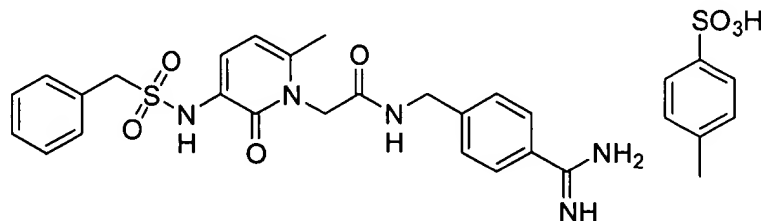
Example 19



The compound, N-[[4-[(amino)iminomethyl]phenyl]methyl]-2-[6-(2-phenylethyl)-2-oxo-3-[[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl]acetamide p-toluenesulfonic acid salt, was synthesized in a similar fashion as for **Example 2** using 2-[6-(2-phenylethyl)-2-oxo-3-[[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl]acetic acid as starting material. HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 3.23 min, $M+H^+$ = 558.5 for formula $C_{30}H_{31}N_5O_4S$. 1H NMR (400 MHz, CD_3OD): δ 2.36 (s, 3H), 2.92 (bm, 4H), 4.43 (s, 2H), 4.54 (s, 2H), 4.87 9s, 2H), 6.10 (d, J = 8.0 Hz, 1H), 7.21 (m, 5H), 7.26-7.31 (m, 8H), 7.55 (d, J = 8.4 Hz, 2H), 7.69 (d, J = 8.0 Hz, 2H), 7.71 (d, J = 8.0 Hz, 2H).

Please replace the second full paragraph starting on page 203 and continuing on page 204 with the following:

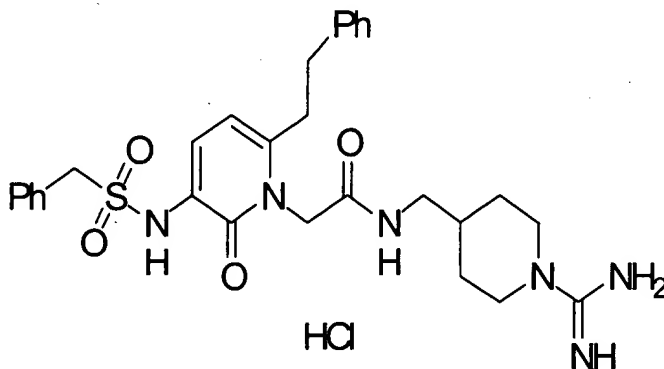
Example 20



B¹⁰
This compound, N-[[4-[(amino)iminomethyl]phenyl]methyl]-2-[6-methyl-2-oxo-3-[[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl] acetamide p-toluenesulfonic acid salt, was synthesized in a similar fashion as for **Example 2** using 2-[6-methyl-2-oxo-3-[[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl]acetic acid as starting material. HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 2.41 min, M+H⁺ = 468.1 for formula C₂₃H₂₅N₅O₄S. ¹H NMR (400 MHz, CD₃OD): δ 2.34 (s, 3H), 2.36 (s, 3H), 4.43 (s, 2H), 4.53 (s, 2H), 4.87 (s, 2H), 6.15 (d, J = 7.6 Hz, 1H), 7.21-7.31 (m, 8H), 7.56 (d, J = 8.4 Hz, 2H), 7.69 (d, J = 8.0 Hz, 2H), 7.72 (d, J = 8.0 Hz, 2H), 8.70 (b, 1H), 9.19 (b, 1H).

Please replace the first full paragraph on page 204 with the following:

Example 21

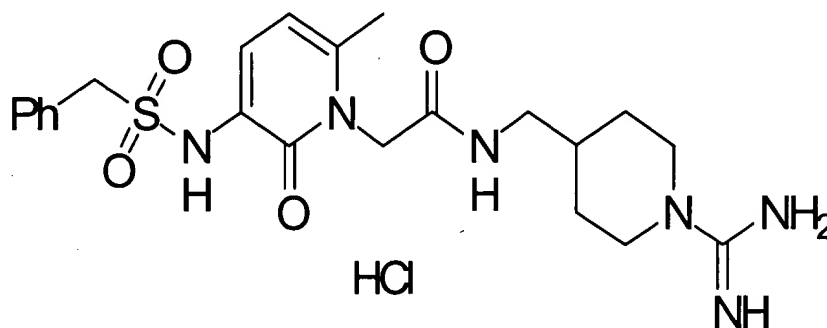


This compound was synthesized in a similar fashion as for **Example 2** using 2-[6-(2-phenylethyl)-2-oxo-3-[[[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl]acetic acid as starting material and coupling it with 4-[1-(N,N-bis-Boc-amidino)piperidinyl]methylamine. The coupling product was treated with 4N HCl in dioxane to generate the product. The compounds were purified by reverse phase C-18 HPLC to generate the final

B¹¹
pure products. HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 3.10 min, M+H⁺ = 565.6 for formula C₂₉H₃₇N₆O₄S.

Please replace the second full paragraph beginning on page 204 and continuing on page 205 with the following:

Example 22



This compound was synthesized in a similar fashion as for **Example 2** using 2-[6-methyl-2-oxo-3-[(phenylmethyl)sulfonyl]amino]-1(2H)-pyrid-1-yl]acetic acid as starting material and coupling it with 4-[1-(N,N-bis-Boc-amidino)piperidinyl]methylamine. The coupling product was treated with 4N HCl in dioxane to generate the product. The compounds were purified by reverse phase C-18 HPLC to generate the final pure products. HPLC-MS (0 to 95% AcCN / 6 min @ 1.0 mL / Min @ 254 nm @ 50 °C): retention time 2.42 min, M+H⁺ = 475.3 for formula C₂₂H₃₁N₆O₄S.

IN THE CLAIMS:

Please insert the following pages (See Exhibit B):

Pages 290, 292, 302 and 363.

Please cancel claims 1-61.